## Safety Recall 17V-xxx Model Year 2014-2017 BMW R1200 GS / GS Adventure Front Fork Part 573 Chronology 10 Jul 2017

On March 2, 2016 an incident in Portugal was reported to BMW with a non-US 2015 BMW R1200 GS being involved. The motorcycle was produced in December 2015 and had approximately 910 miles at the time of the occurrence. The customer was not injured. BMW Motorrad started an investigation.

Between March 2016 and June 2016, BMW received 105 non-US customer complaints of a gap at the front fork plug which connects the steering bar with the front fork, and 2 non-US customer complaints where the plug was completely separated. BMW requested the defected parts and analyzed them in the laboratory.

Due to that analysis, additional damaged parts were requested and further analysis conducted. In parallel, new series parts were also tested. It was found that the damaged parts were produced with the correct material and geometry specifications, and did not have any failures during parts production. It was also observed that the damaged parts had experienced plastic deformation as a result of incidents with momentary extreme stress.

Between July 2016 and November 2016, BMW received 3 customer complaints from the US, and others worldwide of a gap. BMW was also made aware of 1 customer complaint from the US, and 4 others worldwide where the plug was completely separated. Further investigations were initiated. Because of these new complaints, a field analysis was requested.

Six of the loose front forks were analyzed and it was determined that two of the incidents were the result of crashes. In the other four cases, crashes were also reported, but the laboratory test could not confirm that the loosened plug was caused by those crashes.

In February 2017, approximately 200 motorcycles were checked in Germany and South Africa, and it was determined that a gap formation is possible, especially in South Africa, due to the high number of roads in bad condition.

As a result, between end of February 2017 and beginning of April 2017, additional tests were conducted in an attempt to identify the specific impact conditions that were causing these occurrences in the field. Multiple test series, including bench tests and drop tower tests were conducted. Uniaxial and multiaxial tests, at various loading were conducted. Static and dynamic tests were conducted.

Testing concluded that the motorcycle needs to experience an extreme impact to initiate the gap. To enlarge the gap after the initial damage due to the momentary extreme stress incident, another impact with high stress is necessary (i.e., during off-road driving e.g., motocross by a highly skilled driver).

On April 7, 2017, BMW released an improvement measure via a worldwide customer satisfaction program.

In June, BMW reviewed this issue with non-US safety authorities, and on June 30, 2017, BMW decided, in an abundance of caution, to conduct a safety recall.